Report of the

Working Group on Faculty Attraction and Retention

May 2002

Alberta Learning Cataloguing in Publication Data

Alberta. Alberta Learning. Report of the Working Group on Faculty Attraction and Retention.

ISBN 0-7785-1361-0

1. College teachers -- Selection and appointment -- Alberta. 2. Universities and colleges -- Alberta -- Faculty. I. Alberta. Working Group on Faculty Attraction and Retention. II. Title.

LB 2332.74.A3.A333 2002 378.12

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Working Group on Faculty Attraction and Retention

May, 2002

Honourable Dr. Lyle Oberg
Minister of Learning
204 Legislature Building
Edmonton, Alberta
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Dear Dr. Oberg:

On behalf of the Working Group on Faculty Attraction and Retention, I am pleased to submit our report and recommendations on issues related to the attraction and retention of post-secondary faculty in Alberta. In July 2001, you established a working group to make recommendations on improving Alberta's ability to attract and retain faculty. This report completes our work in evaluating the ability of the province's post-secondary institutions to attract and retain faculty.

Based on extensive consultation with stakeholders, the working group identified a broad range of factors that influence the ability of post-secondary institutions to attract and retain faculty, including supply and demand, the fiscal and economic environments, quality of life issues, system policies and goals, institutional characteristics, supporting infrastructure, and personal and professional needs.

We concluded that while the province's current framework for helping institutions attract and retain faculty recognizes this complexity, it needs to be responsive to a wider range of factors. Our recommendations focus on enhancing investment, results, competitive positioning, pension portability, employment flexibility, collaboration, supply and demand, marketing, and interjurisdictional coordination.

The working group believes a more comprehensive response to attracting and retaining faculty will help ensure that Alberta's post-secondary system and the province itself continue to be globally competitive. Alberta is an active competitor in the global economy, and our ability to maintain our advantage rests on a highly skilled workforce, and the creation and application of new knowledge and technologies. As a central provider of learning and research, Alberta's post-secondary system plays a fundamental role in the province's well being.

On behalf of the working group, I would like to thank you for providing this opportunity to identify options to improve the ability of Alberta's post-secondary institutions to attract and retain faculty.

Sincerely,

Kjersti Powell
Chair

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Working Group on Faculty Attraction and Retention

In July 2001, the Minister of Learning, Dr. Lyle Oberg, established a working group to make recommendations on improving Alberta's ability to attract and retain faculty. The working group was established in response to a recommendation of the MLA Post-secondary Funding Review Committee. The Committee noted that Alberta is an active competitor in the global economy, and its ability to maintain its competitive advantage depends on a highly skilled workforce and the creation and application of new knowledge and technologies. As a central provider of learning and research, Alberta's post-secondary system plays a critical role in the province's well being.

Objectives

The working group's objectives were to examine and make recommendations on improving the ability of Alberta's post-secondary institutions to attract and retain faculty. However, some recommendations appropriately reflect the whole range of human resources within an institution (i.e. both faculty and other staff).

Recommendations were to be provided to the Minister in early 2002. Given the $40 million in new provincial support for faculty attraction and retention provided in the 2001-04 business plan, the working group's recommendations focus on actions that could be undertaken within existing resources.

Membership

The group was chaired by Kjersti Powell, former board chair of Keyano College and member of the MLA Post-secondary Funding Review Committee. Ms. Powell is Manager of Human and Organizational Development at Syncrude Canada Ltd.

The other two members of the group were Eric A. Hillman and Jon Havelock. Mr. Hillman has held a number of positions in the post-secondary sector, including nine years as Vice-President (Administration) at the University of Lethbridge. Now retired from the University, he continues to consult and advise within the post-secondary sector and is a member of the Lethbridge Regional Hospital Foundation Board.

Mr. Havelock, who served as MLA for Calgary Shaw from 1993 to 2001, was the MLA representative on the first Access Fund Advisory Committee. He is also a former minister of Alberta Economic Development and Alberta Justice. Mr. Havelock is President and Managing Partner of Strategic Relations Inc., a consulting firm that provides organizations with strategic advice relating to government, regulatory structures and competing stakeholder interests.

Process

In developing its recommendations, the working group consulted with post-secondary institutions, faculty and student associations, government departments and other umbrella organizations (see Appendix 1).

In October of 2001, stakeholders were invited to provide written submissions to the working group. This feedback was included in a discussion document that helped focus discussions with stakeholders on December 7th, 2001.

This report reflects feedback received throughout the consultation process, as well as the working group's recommendations.

Context

Alberta's post-secondary institutions operate in a complex environment. A number of internal and external factors influence institutions' ability to attract and retain faculty and other staff.

Institutions are influenced by individual goals, mandates, resources, cultures and other characteristics. In addition, as partners within the post-secondary system they are guided by policies and strategic directions set out by the provincial government. Institutions are influenced by the province's social, economic and fiscal directions. They are impacted by events in other parts of Canada, the United States, and the world in general.

Together, these factors form a framework for viewing issues affecting the ability of post-secondary institutions to attract and retain faculty. Key elements of the framework and their context to Alberta are described in Appendix 2.

What We Heard

The following key themes emerged from the consultations with stakeholders.

Key Themes

Competition: Growing competition for staff was identified as a central issue. While competition for the best has always existed, stakeholders felt that competition may become more intense as faculty begins to retire in large numbers over the next decade. The competition is expected to vary depending on the discipline. It was also recognized that competition is becoming more intense for some non-academic staff.

Compensation and Benefits: The provision of competitive compensation and benefits is a key factor influencing faculty attraction and retention. The challenges differ by sector.

As a result of their mandates, universities compete for faculty in a more global environment. It is important that university compensation be competitive with peer institutions outside Alberta. University stakeholders pointed out that gross salaries lag behind others in Canada and are substantially lower than comparable U.S. institutions. The competitive position with U.S. institutions is further eroded by the weakness of Canada's dollar and a higher Canadian tax regime.

In contrast, the colleges and technical institutes have mandates more closely linked to specific program areas and community needs. The stakeholders identified industry and, to a lesser extent, universities as their main competitors for faculty. It was felt compensation was not competitive with industry or universities and in some cases, the school system. Shortages within industry are creating pressures for colleges and technical institutes.

Collective agreements that are restrictive regarding initial salary placements, payment of market supplements and performance bonuses were identified as key impediments to attracting faculty, as was the lack of transferability between the Local Authorities Pension Plan and other pension plans.

Alberta's low tax environment compared to the rest of Canada and reasonable cost of living were viewed as strengths in attracting individuals from other provinces. Lifestyle benefits, such as regular hours of work, and professional autonomy were identified as strengths in recruiting and retaining faculty from industry.

Location: Alberta's healthy economy, diverse population, entrepreneurial spirit, low cost of living, and taxes support attraction and retention of faculty and other staff. Location was identified as a strength for post-secondary institutions in Calgary and Edmonton, particularly if individual, spousal and family needs are accommodated. Both cities are viewed as major centers with strong economic, cultural, recreational, health, education and other benefits that enhance quality of life.

However, for institutions located in smaller centers and rural areas of the province, location was viewed as a weakness. Lack of spousal employment opportunities was seen as a key impediment, as was reduced access to education, health, cultural, recreational and other benefits.

Infrastructure: Recruitment and retention can be enhanced if faculty is provided with adequate support, including technical, professional and administrative support, research assistants and graduate students, as well as adequate space for research, offices, classrooms and labs.

The perceived ability of Alberta's institutions to provide such support varied among stakeholders. A number mentioned having difficulty recruiting support staff, particularly in the area of information technology. Several suggested the current and projected graduate student population in Alberta is not large enough to support the intensity of research. A number of stakeholders commented on the excellence of their facilities and technology, while for others, lack of physical space was a major constraint.

Culture: A number of stakeholders noted their collegial operating climates as a key strength. Employees are more likely to develop loyalty if valued and recognized for their contributions, and if participation in decision-making is part of the working climate. The handling of the recently provided provincial support for faculty attraction and retention was mentioned by many. While some institutions consulted on the use of these funds, others did not. Additionally, it was noted that the quality of executive leadership needs to support attracting and retaining faculty and staff.

Research Opportunities: A research-supportive culture is a key element to recruitment and retention. In particular, university stakeholders acknowledged recent provincial research funding initiatives have raised Alberta's profile significantly. However, it was also pointed out these initiatives benefit only targeted fields, and success in acquiring this funding creates other challenges such as meeting the indirect costs of research.

In Alberta, only the universities are legislated to carry out research as a part of their mandates. A number of stakeholders noted colleges and technical institutes face challenges in recruiting and retaining faculty with doctorates as they are teaching intensive and do not provide the same opportunities for research or scholarly activity outside the classroom. However, it is recognized that colleges and technical institutes are involved in applied research.

Professional Development Opportunities: Technology and knowledge are constantly evolving. Faculty need to remain current in their field, and develop the skills necessary to adapt to changing teaching environments. Increasingly, technical expertise, curriculum design, alternate delivery expertise, marketing, and entrepreneurial ability are desirable skill sets. Opportunities for professional development vary throughout the post-secondary system.

Workload: Generally, faculty seeks a working environment that can provide them with a balance among teaching, research, community, and administrative responsibilities. Stakeholders suggested high teaching workloads are a disadvantage in attracting and retaining faculty.

Employment Stability: Non-permanent positions offer little stability and frequently, there is no assurance term positions will lead to full-time academic careers. While institutions are increasingly converting term positions to full-time positions, a substantial proportion of the academic workforce continues to be non-permanent.

Reputation: Institutional reputation is an important factor. Generally, individuals are attracted to an institution owing to its quality and those with whom they will be working. The greater the ability an institution has to retain a critical mass of the best people, the greater the ability it will have to recruit similarly outstanding people.

Most stakeholders felt institutions and the system in general had established reputations for quality, and this was viewed as a strength. However, a number pointed out the college and technical institute system was not well-known outside the province.

Synergy: Stakeholders suggested the lack of synergy within the post-secondary system was a disadvantage; institutions often act independently rather than collectively, often competing for the same faculty. For example, the introduction of university transfer and applied degree programs in the college and technical institute sector has increased the demand for faculty with doctoral degrees. Colleges and technical institutes could consider recruiting individuals with other qualifications, including relevant industry experience.

This issue generated considerable discussion at the focus group sessions, including the potential development of centres of excellence, system-wide career pathways, and centralized human resource processes.

Coordination: Stakeholders emphasized that jurisdictions throughout Canada and the U.S. are facing similar pressures. Poaching faculty from other jurisdictions is not a long-term solution to the problem. There is a need to develop a larger pool of qualified individuals. It was suggested a coordinated strategy among Canadian jurisdictions should be developed.

Communication: A key recommendation was that Alberta's post-secondary sector needed to position itself better. Generally, stakeholders felt the strengths of Alberta's system and that of individual institutions were not well-known outside the province. A system-wide communications strategy would help inform prospective faculty about the benefits of working at Alberta's institutions as well as the advantages of living in Alberta.

Information: Stakeholders suggested there is a need to collect better information to support decision-making regarding supply, demand, and attraction and retention strategies. The lack of standardized comparative data, among jurisdictions as well as institutions, makes it difficult to identify and respond to future needs.

Resource Stability: The stability and predictability of funding was a key issue raised by stakeholders including the use of targeted envelopes rather than ongoing base grants. This lack of predictability affects institutions' ability to commit to ongoing support for faculty. The lack of an up-to-date and stable plan for capital infrastructure was identified as a concern as it affects institutions' ability to plan for enrolment, research, facilities

maintenance/replacement and growth. Stakeholders suggested the government should ensure infrastructure plans and funding are integrated with institutions' budget and business planning cycles.

Guidelines For Recommendations

The working group's recommendations are provided in this section of the report. Several key considerations, including stakeholder input, guided development of the recommendations.

Under the terms of reference provided by the Minister, the working group's objective was to make recommendations for improving the long-term ability of Alberta's post-secondary system to attract and retain faculty. It is important to recognize that many of the strategies are relevant to the attraction and retention of non-academic and support staff.

The recommendations were developed from a strategic approach. As pointed out in Appendix 2, each institution is an autonomous and complex organization that operates with a different set of strengths, constraints, and challenges. The working group realized it would not be possible to make recommendations respecting every unique challenge. It was agreed the focus of the recommendations would be at the system level.

The working group also recognized that institutions have the ability and responsibility to influence faculty attraction and retention at their institutions, but also recognized that many factors are beyond the control of individual institutions, the system and government.

Finally, the recommendations reflect the working group's mandate to focus on actions that can be undertaken within existing resources.

Improving the Attraction and Retention Framework

Stakeholders emphasized that institutions' ability to attract and retain faculty is influenced by a complexity of internal and external factors. The working group believes the Alberta government's approach to faculty attraction and retention recognizes this complexity.

Funding to enhance Alberta's intellectual infrastructure and support research is provided through a number of mechanisms. In response to a recommendation of the MLA Post-secondary Funding Review Committee, the government is reviewing the full scope of indirect costs associated with provincially sponsored research. Ongoing funding of $28.5 million was provided to post-secondary institutions to help attract and retain faculty in 2001-02, with additional funding of $12 million budgeted in 2002-03. Financial assistance for students has been enhanced, and significant improvements have been made to the province's tax structure, quality of life, and economy.

The working group's recommendations build on this framework. Specific recommendations, along with explanations and some general strategies for implementation, are provided.

Recommendations

Recommendation 1 – Strategic Investment

Alberta Learning should continue to provide targeted financial support for attraction and retention of faculty and staff.

Overall, Alberta Learning has provided over $40 million in new ongoing funding to post-secondary institutions to help attract and retain faculty and staff. In 2001-02, $28.5 million was provided, followed by an additional $12 million in 2002-03. The funding in 2001-02 was allocated based on each institution's share of total base operations grants, and was provided as a base grant adjustment. Institutions determined how the new funds were spent.

Throughout the consultation, stakeholders identified a number of key areas, such as compensation and infrastructure, where additional investment would enhance their ability to attract and retain people. It is important for provincial support to be as flexible as possible. Funding envelopes allow resources to be directed toward current and emerging demands, for example, the changing demographics of human resources and the student population. Also, with growing numbers of retirees, resources will be freed-up as new employees enter the work force.

To ensure funding is focused on areas of strategic importance, the working group recommends that the resources continue to be provided through a targeted funding envelope and allocated based on each institution's share of total base operations grants. However, attraction and retention plans should be submitted to the Ministry for approval. The plans should demonstrate how the funds will be used to support attraction and retention of faculty and staff. For example, institutions should demonstrate how funds were used to promote executive leadership, collaborative recruitment efforts, compensation, and infrastructure.

Recommendation 2 – Demonstrating Results

Alberta Learning should establish a mechanism to determine how the funding provided is improving the ability of post-secondary institutions to attract and retain faculty and staff.

Accountability has been a key element of Alberta's post-secondary funding framework since the mid-1990s. The working group recommends metrics be established to determine if the $40 million provided for attracting and retaining faculty and staff is achieving the desired results. Alberta Learning is encouraged to work collaboratively with institutions to develop measures that focus on improvement at both an institutional and system level.

Recommendation 3 – Competitive Compensation

Alberta Learning should work with post-secondary stakeholders to develop standard indicators for competitive compensation.

Compensation is a key factor affecting Alberta's overall competitive position in the post-secondary market for faculty.

Although many stakeholders suggested that gross salary levels are the best determinate of Alberta's ability to attract and retain faculty, others felt that taxation and cost of living are also key considerations. It was noted that over the past several years, the provincial government has implemented significant improvements to taxes providing Albertans with higher levels of disposal income and other economic benefits. As a result, Alberta has the lowest overall taxes in Canada and Albertans have the highest personal disposable incomes.

As Alberta's post-secondary system moves into an increasingly global environment, determining its relative standing in key areas is important. The working group suggests that national data collected annually by Statistics Canada through its *University and Colleges Academic Staff Survey* provides a credible base from which compensation comparators in the university and university-college sectors can be developed.

National data for community colleges and technical institutes are not collected. Alberta's colleges and technical institutes have recently begun collecting compensation data, through a *Clearinghouse* initiative, which may help provide a starting point for collecting the data needed. The working group encourages the Council of Presidents to lead in developing the appropriate compensation data in conjunction with Alberta Learning.

Finally, following the development of agreed upon compensation data, the working group suggests that competitive benchmarks be established for Alberta's institutions, within their out-of-province peer groups. Any future funding for attraction and retention could take these benchmarks into account.

Recommendation 4 – Pension Portability

Alberta Learning should work with Alberta Finance and post-secondary institutions to achieve greater portability among pension plans.

The working group heard that portability among Alberta's pension plans is an impediment to recruitment in the colleges and technical institutes. The majority of academic staff at Alberta's colleges and technical institutes participate in the Local Authorities Pension Plan, while a minority of academic staff participate in the Public Service Pension Plan and the Management Employees Pension Plan.

Currently, terminating members of these plans may transfer out the commuted value of their pensions to another pension plan. However, receiving plans require the actuarial reserve amount to be transferred in, which is generally greater since it takes into account

future salary increases. Consequently, the transferring member must make up the difference or be credited with less pensionable service.

This policy also applies to members transferring between other plans and the Alberta plans. Alberta Finance is studying possible arrangements to enhance portability between Alberta plans and other plans. Finance has indicated that reciprocal agreements raise a number of concerns, including administration costs, employee equity, and pension liabilities. Generally, reciprocal agreements are established only where sufficient two-way movement of staff is demonstrated.

To help with recruitment in the college and technical institute sector, the working group recommends that Alberta Learning work with Alberta Finance to improve portability among the Alberta group of pension plans, as a first step.

As a second step, the working group encourages Alberta Learning to work with Alberta Finance and the colleges and technical institutes to determine whether flows of staff between Alberta and other jurisdictions are sufficient to warrant further consideration of reciprocal agreements.

Recommendation 5 – Employment Flexibility

Alberta post-secondary institutions should work to develop employment policies that provide the latitude necessary to respond to a wide range of individual needs.

Faculty members and other staff are attracted to post-secondary institutions for a variety of personal and professional reasons, which depend on an individual's background, interests and aspirations. Given this diversity, the working group believes it is important that employment is flexible and responsive to a variety of needs and recommends institutions work to maximize flexibility in their employment arrangements.

For example, institutions can enhance attraction and retention by allowing faculty to work on consulting projects, government studies or in the private sector through secondments, leaves or restructured workloads. Flexible policies regarding ownership and commercialization of intellectual property may help attract and retain university faculty. A number of key areas were identified by several stakeholders in which flexibility can be improved:

- initial placement on salary grids;
- ownership and compensation for commercialization of intellectual property;
- position permanency;
- post-retirement employment opportunities;
- provision of market differentials and performance pay;
- provision of relocation assistance;
- provision of secondment and sabbatical opportunities;
- provision of spousal employment opportunities; and
- workload structures.

Recommendation 6 – Advancing Leadership Capability

Post-secondary institutions should collaborate in the advancement of leadership capability throughout the system.

An emerging issue throughout North America is the possibility of a "leadership vacuum" in the post-secondary sector. This is due in large part to retiring faculty and administrators and to a decline in participation in graduate studies. While there has been considerable discussion about succession planning and leadership development in Alberta's business, public and government sectors, more concerted action may now be required. For the post-secondary sector this action could be through the establishment of a forum to review the opportunities for and content of programs for the professional development of senior administrative leaders in the adult learning system. Progressive thinking and leadership skills development are required so that institutions can achieve the strategic goals of their institutions and of the adult learning system.

Recommendation 7 – System Collaboration

Post-secondary institutions should work collaboratively to identify and implement shared strategies for improving the system's ability to attract and retain faculty and staff.

Attracting and retaining top quality faculty and staff is both a system-wide and institutional goal. System integration is a key element of system-wide success. Institutional strategic directions must be complementary. The working group believes greater effectiveness can be achieved through combined rather than independent effort.

One example of this collaboration involves the development of the Campus Alberta Repository of Educational Objects (CAREO). This joint initiative of the University of Alberta and the University of Calgary will provide access to a range of digital learning materials and foster an online community for the exchange of resources and expertise.

Stakeholders identified a number of areas where joint efforts might produce better results. These included the development of centres of excellence, system-wide career pathways, and centralized human resource processes such as cluster recruiting, joint appointments and the creation of a system-wide faculty job site or website. The working group recommends that institutions identify and implement joint approaches to attraction and retention.

Recommendation 8 – Supply and Demand

Alberta Learning, in collaboration with post-secondary institutions, should develop an estimate of supply and demand for faculty in the university, college, and technical institute sectors in Alberta over the next 15 years.

Throughout the consultation, the working group heard there is a need to collect better information to support evidence-based decision-making. *The Association of Universities and Colleges of Canada* (AUCC) has projected that Canadian universities will need to hire 2,500 to 3,000 new faculty per year over the next six years. However, demand will be difficult to meet given that Canada produces about 4,000 doctoral graduates per year and only 30-40% enter full-time academic positions.

Jurisdictions throughout Canada and the U.S. are facing similar pressures. Poaching faculty from other jurisdictions is not a long-term solution. There is a need to develop a larger pool of qualified individuals through graduate program growth over the next decade and beyond, not only in Alberta, but also across Canada.

Presently, a forecast has not been conducted by province, discipline or for sectors other than universities. The AUCC forecast cannot be applied directly to Alberta given its different age profile of faculty, enrolment projections and so forth. The working group believes the development of a long-term, Alberta-specific forecast is necessary. While it is generally recognized that demand will increase in response to faculty retirement and enrolment growth, the extent of this challenge within Alberta has yet to be determined. For instance, the extent to which technology will impact demand is not known. Also, while stakeholders indicate they are experiencing difficulties recruiting faculty in specific areas, the extent of these difficulties is not known. By and large the feedback on the pressures is more anecdotal than quantified.

As an initial step, the working group suggests there is a need to develop a national overview of supply and demand for faculty. To date, estimates have tended to focus on the university sector. The working group recommends that Alberta Learning raise this issue with federal and other provincial counterparts. Since Alberta Learning is currently chairing the Council of Ministers of Education, Canada's Working Group on Postsecondary Education Research, the working group has proposed faculty renewal and retention as one of its future research priorities.

Recommendation 9 – Expanding Graduate Student Numbers

Alberta Learning should develop policies and ensure programs are in place to foster increased educational attainment for Alberta students at the graduate level, to ensure the province is producing sufficient graduate students to support research activity, and to respond to future demand for faculty.

It is important to recognize that the graduate student population is the primary source from which Faculty is drawn. To develop a masters or doctoral graduate requires considerable time and resources.

Current data appear to indicate that Alberta may not be producing a sufficient number of masters and doctoral graduates to support both its growing research activity and also future demand for faculty. The development of this base is essential to support the development of Alberta's knowledge economy and economic advantage.

It is also important that Alberta Learning's programs and policies support this direction. The province needs to work with institutions to enhance awareness among undergraduate students of graduate program opportunities.

Recommendation 10 – Flexible Graduate Programs

Universities need to ensure that graduate level programs are flexible and responsive to the changing needs of learners.

The working group recognizes that graduate students play a key role within the university setting in terms of the significant contribution they provide toward the development of new knowledge and in support of research activities. Students are attracted to graduate studies within particular institutions for many of the same reasons that faculty members and other staff are drawn, including the quality of programs, peers, and instruction, as well as the reputation of a particular institution. Students are also attracted to graduate studies as a result of the research opportunities that may be available, assistantships, scholarships and other forms of financial assistance.

Increasingly, given the demographics and diverse backgrounds of students, many will be attracted to graduate programs owing to their flexible delivery or because the student's prior learning or experience is recognized as transferable credit.

Universities need to ensure that graduate programs support the changing and diverse needs of students through innovative delivery, part-time opportunities, application of technology, and recognition of prior learning credentials, including transferability and recognition that is across disciplines.

Recommendation 11 – Marketing

Alberta's Post-secondary institutions should work with schools, provincial and municipal partners to develop marketing plans and materials that build on learning system, community, and provincial strengths.

Most stakeholders felt their institutions and sectors have established reputations for quality and possess a number of strengths and advantages, but these were not well-known outside the community or province.

The working group suggests these strengths should be leveraged to their fullest potential and recommends that post-secondary institutions, schools, municipal and provincial partners work together to communicate the benefits of living in Alberta and working within Alberta's learning system. Marketing plans developed by post-secondary institutions should utilize and customize these resources for prospective faculty, teachers and other staff that make up Alberta's learning system.

The working group also encourages provincial and local governments to recognize Alberta's post-secondary system and institutions in their economic development strategies.

Recommendation 12 – Physical Infrastructure

Alberta Learning should work with Alberta Infrastructure, Alberta Innovation and Science, and post-secondary institutions to incorporate a long-term capital plan into the government and institutions' annual business plans.

Facilities, equipment, and computing and telecommunications systems are key foundations of the post-secondary instructional and research environments. Throughout the consultation process, the working group heard that infrastructure was among the primary factors affecting the ability of post-secondary institutions to attract and retain faculty and support staff. While stakeholders pointed out the quality of infrastructure throughout the system varies among institutions, it was suggested there is a need for a stable and up-to-date provincial plan for improving the system's physical infrastructure.

In June 1998, the Alberta government reported the results of a study assessing the physical capacity in the province. This study found that capacity to accommodate enrolment increases existed primarily in rural institutions where lower growth was expected. Key pressure points included office and library space, aging buildings, and shortages of computer and research labs, computer-equipped study stations and student housing. The working group suggests that a more comprehensive and rigorous ongoing planning process be adopted, as this is essential to develop a quality infrastructure that contributes to attraction and retention of faculty and staff and that is responsive to regional needs.

In addressing this issue, the government is encouraged to involve the private sector wherever possible and explore innovative financing and funding arrangements. A

number of successful public-private partnership models already exist throughout the post-secondary system.

Concluding Comments

Throughout the review process, the working group identified a broad range of factors that influence the ability of post-secondary institutions to attract and retain faculty and staff. A comprehensive response will help ensure Alberta continues to be globally competitive. As noted at the outset, Alberta is an active competitor in the global economy, and its ability to maintain this advantage rests on the development of a highly skilled workforce, and the creation and application of new knowledge and technologies. As a central provider of learning and research, Alberta's post-secondary system plays a critical role, essential to the province's well being and future growth and prosperity.

In conclusion, the working group would like to thank the Minister of Learning, Dr. Lyle Oberg, for the opportunity to undertake this very important review. The stakeholders who provided written submissions and participated in the focus group session, as well as the departmental staff who provided support are also gratefully acknowledged. Our task could not have been completed without the insight and advice gathered throughout the consultation process.

Appendices

Appendix 1: Stakeholders Consulted

Post-secondary Institutions

- Alberta College
- Alberta College of Art & Design
- Athabasca University
- Augustana University College
- Bow Valley College
- Canadian University College
- Concordia University College
- Fairview College
- Grande Prairie Regional College
- Grant MacEwan College
- Keyano College
- Lakeland College
- Lethbridge Community College
- Medicine Hat College
- Mount Royal College
- NorQuest College
- Northern Alberta Institute of Technology
- Northern Lakes College
- Olds College
- Portage College
- Red Deer College
- Southern Alberta Institute of Technology
- The Banff Centre
- The King's University College
- The University of Lethbridge
- University of Alberta
- University of Calgary

Faculty Associations

- Alberta Colleges and Institutes Faculties Association
- Confederation of Alberta Faculty Associations
- The Faculty Association of Medicine Hat College
- The Faculty Association of the University of Calgary

Student Associations

- Alberta College and Technical Institute Students' Executive Council
- Council of Alberta University Students
- University of Alberta Graduate Students' Association
- University of Calgary Graduate Students' Association

Other

- Alberta Human Resources and Employment
- Alberta Infrastructure
- Alberta Innovation and Science
- Alberta Nursing Education Administrators
- Council of College and Technical Institute Presidents
- Universities Coordinating Council

Appendix 2: Contextual Framework

As shown in Diagram 1, numerous internal, external, and individual factors influence the ability of post-secondary institutions to attract and retain faculty. Together, these factors form a framework for viewing issues related to faculty attraction and retention, including potential areas of strength as well as weakness. Key elements of the framework are identified below.

Diagram 1: Factors Influencing Faculty Attraction and Retention

External Factors

These influences include the supply and demand for faculty, the economic and fiscal environments and quality of life considerations.

Demand: The demand for faculty is affected by enrolments, the number of students who can be served by each faculty member, the number of faculty who must be replaced because of retirement or attrition, and faculty needed for new programs and areas of research.

Faculty demand is strongly influenced by the population it serves. Alberta has a larger echo boom population than most other provinces in Canada, which over the past few years has begun to complete high school and enter the post-secondary system. For the next decade, post-secondary enrolment in Alberta is forecast to increase. There will also be pressure to accommodate mature learners. Between 2001 and 2016, Alberta's working age population (25 to 64) is forecast to increase by almost 20%.

These factors are expected to increase the demand for skill upgrading, retraining, and continuous learning. Advances in communications technology have created the potential to enhance significantly accessibility to post-secondary education.

Alberta is facing a shortage of skilled workers in many areas. Demand for post-secondary graduates is projected to be particularly strong in computing and associated subject areas, business management, tourism, nursing, industrial and electronic engineering, information technology, and the skilled trades. Over the next ten years, economic growth in Alberta is expected to be about 3.5% annually, with the number of jobs expected to grow at about 3% per year. Human Resources Development Canada has projected that post-secondary education or training will be required for 79% of all new jobs created over this period.

Faculty demographics are also are a key driver of demand. Currently, there are more than 60,000 faculty members at universities and colleges throughout Canada. Generally, post-secondary faculty is older than the rest of the work force. Those aged 40-49 and 50 and over will be reaching retirement age in the next two decades.

Over the next 15 years, due to retirement, faculty replacement needs in Alberta are expected to be slightly less than those for Canada as a whole, because Alberta has a lower proportion of older faculty than many other provinces. As shown in Tables 1 and 2, 43.5% of Alberta's full-time university faculty is between the ages of 50 and 64, compared to 48.9% for Canada overall. Similarly, the proportion of full-time college faculty over the age of 49 is 40.7% in Alberta, compared to 42.1% for Canada.

Table 1

Age Breakdown of Full-time University Faculty
as a Percentage of Total Full-time Faculty, 1999-00

	<30	30-39	40-49	50-59	60-64	65+
NF	0.4	12.4	31.2	46.3	9.3	0.5
PEI	0.5	22.8	42.9	27.5	6.3	0.0
NS	1.1	15.2	34.3	39.9	8.6	0.6
NB	0.8	19.1	34.5	38.5	6.3	0.2
QC	0.6	14.7	33.6	39.4	8.5	3.3
ON	0.7	16.4	30.8	38.7	12.2	1.1
MN	0.9	15.1	29.8	39.2	10.7	4.2
SK	0.9	16.2	34.9	35.2	10.8	1.9
AB	0.7	18.9	35.6	35.1	8.4	1.2
BC	0.5	14.8	33.3	37.3	13.5	0.7
CDA	0.7	15.9	32.7	38.5	10.5	1.7

Note: Percentages may not add to 100 due to rounding and faculty who did not report age.
Source: Statistics Canada, *University and Colleges Academic Staff Survey*.

Table 2

Age Breakdown of Full-time College Faculty
as a Percentage of Total Full-time Faculty, 1996-97

	20-29	30-39	40-49	50-59	60+
NF	2.1	22.2	48.1	25.9	1.8
PEI	0.0	24.1	34.5	36.8	4.6
NS	1.9	20.4	44.9	30.1	2.8
NB	2.4	21.1	41.7	29.9	5.0
QC	2.3	16.7	41.6	35.8	3.6
ON	1.0	11.0	38.2	41.7	8.2
MN	2.0	17.5	38.3	36.6	5.6
SK	1.7	13.8	45.7	33.5	5.3
AB	1.3	14.0	43.9	36.2	4.5
BC	0.7	15.3	38.7	38.8	6.6
CDA	1.7	15.3	40.9	36.9	5.2

Note: College refers to non-university degree granting institutions, such as technical institutes, community and regional colleges, and CEGEPs in Québec.

Source: Statistics Canada and Council of Ministers of Education, Canada. *Education Indicators in Canada: Report of the Pan-Canadian Education Indicators Program 1999*, February 2000.

Inter-institutional mobility and movement to non-academic sectors also affect the demand for faculty. Research on universities suggests the number of faculty accepting positions at other institutions is four times higher than the number leaving the sector. Although faculty mobility does not represent attrition from post-secondary education, it affects institutional and jurisdictional faculty replacement needs.

Supply: Key factors affecting supply are the number of new graduates, the number of qualified immigrants, and competitive pressure from other jurisdictions as well as non-academic sectors for new graduates, experienced faculty, and other qualified individuals.

Generally, an earned doctorate is the entry point qualification for university faculty, while qualifications for faculty at colleges and technical institutes vary depending upon program area. Most college and technical institute faculty require industry experience in addition to academic qualifications. With the introduction of university-transfer and applied degree programs, Alberta's colleges and technical institutes increasingly are seeking to recruit faculty with doctorates.

The *Association of Universities and Colleges of Canada* has projected Canadian universities will need to hire 2,500 to 3,000 new faculty per year over the next six years to meet enrolment growth and replace faculty leaving the system. Demand will be difficult to meet since Canada produces about 4,000 doctoral graduates per year and only 30-40% enter full-time academic positions. *Statistics Canada* has estimated that an additional 12% of doctoral graduates move to the United States. The American pool of new doctorates also is declining. In 1999, for the first time in 14 years, the number of doctorates awarded by American research universities fell, dropping 3.6% from the previous year.

As shown in Table 3, with the exception of universities in Québec, the majority of new faculty hired at Canadian universities are residents of other Canadian jurisdictions. Generally, Canadian universities hire more residents from their home province than from any other single jurisdiction. About 14% of new recruits to universities in Canada come from the United States. At 21.7%, Alberta has the highest percentage of recruits from the United States of any province. Table 4 indicates that between 1994-95 and 1998-99, Alberta gained more faculty in engineering, health professions, and math and physical science disciplines than it lost. Ontario, Québec and British Columbia were the principle sources of these new faculty. In education, fine and applied arts, humanities, social sciences, and agriculture and biological sciences, Alberta did not significantly gain from, or lose to, other provinces.

Table 3

Previous Location of New University Full-time Faculty Hires as a Percentage of Total Hires, 1994-95 to 1999-00

	Home Province	Other Canadian Jurisdictions	United States	Other Countries
NF	13.4	56.2	8.5	5.5
PEI	17.9	59.5	16.7	6.0
NS	25.1	50.2	11.4	6.1
NB	33.8	52.2	7.6	4.0
QC	31.2	11.5	10.7	5.4
ON	41.4	26.0	17.3	7.1
MN	21.1	32.1	13.2	5.1
SK	25.7	43.2	9.2	3.9
AB	28.6	38.8	21.7	8.4
BC	13.3	20.2	9.3	5.6
CDA			14.4	6.1

Note: Percentages may not add to 100 due to faculty who did not report previous location. Data for Québec and Canada are for 1994-95 to 1998-99.

Source: Statistics Canada, *University and Colleges Academic Staff Survey.*

Table 4

Net Gain (Loss) of New University Faculty to Alberta by Discipline, 1994-95 to 1998-99

	NF	PEI	NS	NB	QC	ON	MN	SK	BC
Education	1	0	(2)	0	0	(1)	1	0	(3)
Fine & Applied Arts	(1)	0	0	(1)	0	(2)	0	(1)	1
Humanities & Related	(2)	0	(2)	(5)	2	0	1	0	0
Social Sciences & Related	(1)	(1)	(6)	1	5	14	(8)	(6)	4
Agriculture & Bio Sciences	(1)	0	0	0	(2)	1	(2)	0	1
Engineering & Related	0	0	3	(3)	7	5	0	(2)	8
Health Professions	(2)	0	2	0	3	19	0	(5)	4
Math & Physical Sciences	(3)	(1)	(1)	(3)	(2)	9	1	0	4

Source: Statistics Canada, *University and Colleges Academic Staff Survey.*

Comparable mobility data for the college sector in Canada is not collected, since colleges recruit primarily from within their home provinces.

Fiscal Environment: The fiscal environment includes financial support for institutions, students, and research and development and includes both public and private sources.

In Alberta, the Ministry of Learning provides operating grants to post-secondary institutions to support delivery of credit programs. Institutions also provide other services and generate revenue from tuition and other student fees, non-credit and off-campus credit programs, the operation of ancillary services, sponsored research funding from provincial and federal agencies and private industry, as well as investments and donations. Other provincial ministries provide grant support for facilities infrastructure, research and intellectual infrastructure, and other specific projects.

Both the provincial and federal governments through a wide range of loans, grants, scholarships and bursaries provide financial support to post-secondary students. Both levels of government also provide debt reduction and payment relief programs to help students manage their loan debts.

The federal and provincial governments through a number of vehicles provide the majority of sponsored research funding generated by Canadian universities. Over the past several years, the sponsored research environment in Canada has been enhanced significantly through new federal initiatives, including the Canadian Foundation for Innovation, Canadian Institutes for Health Research and the Canada Research Chairs Program. In Alberta, the establishment of two endowments funds, The Ingenuity Fund and Alberta Heritage Foundation for Medical Research, has established a sponsored research environment that is unique in Canada.

Economic Environment: Faculty is drawn to jurisdictions with industries and economic infrastructure that complement their disciplinary interests. Universities' ability to establish cores of research excellence in particular disciplines often depends on the presence of related industries and economic infrastructure. The diversity and strength of economy, tax structure and relative affordability are also important, as these promote employment growth stability and a higher standard of living.

Over the past five years, Alberta has had the fastest growing economy in Canada, with the annual real rate of growth averaging 5.1 per cent. Over the next ten years, Alberta's economy is expected to be the strongest in the country. Although the primary industries continue to be energy, agriculture, forestry and tourism, the province has moved into a wider range of industries, including telecommunications and wireless equipment, biotechnology, software development, electronics and microelectronics. Its economy is supported by a modern utilities, transportation, technology, and research and development infrastructure. In addition to the lowest overall taxes in Canada, Alberta has one of the most reasonable costs of living in the country.

Quality of Life: Personal security, a clean environment, and access to health services, educational systems, cultural and recreational opportunities, and other amenities all affect a jurisdiction's attractiveness as a place to live and work. Generally, Alberta possesses strong social, economic, cultural, recreational, health, education and other systems that enhance quality of life; however, access to services and amenities varies between urban and rural regions of the province.

Internal Factors

Key internal influences include system-wide policies and goals, institutional characteristics, and supporting post-secondary infrastructure.

System: As partners in a system, Alberta's public post-secondary institutions are influenced by legislation, policies and goals established by the provincial government.

To foster a strategic and responsive approach to system development, the Minister approves each institution's mandate as well as its credit program offerings. Mandates establish general program responsibilities and may also identify client groups served. Each institution is unique in the range of learning opportunities provided and the students served. While only universities are legislated to carry out research as an essential part of their mandates, research is also undertaken in the college and technical institute sectors, often on a contract basis for industry. The functional integrity of the system depends upon each institution operating within its mandate.

Institutions: In addition to system-wide responsibilities, post-secondary institutions are influenced by individual goals and policies. Each of Alberta's public institutions is governed by an autonomous board that has considerable latitude in management decisions regarding the strategic direction of the institution, resource allocation, revenue generation, programming, growth, and so forth. As a result, each institution is unique in terms of its financial resources, mix of programs, infrastructure, culture, appointment structures, terms and conditions of employment, compensation and benefits, and other aspects of the work environment.

Infrastructure: Facilities, equipment, computing and telecommunications systems, and other supports, such as technical and administrative staff and graduate students to act as research assistants all underpin the post-secondary instructional and research environment. Modern infrastructure helps create a positive learning and working atmosphere.

Both the Government of Alberta and Alberta's post-secondary institutions are recognized nationally for their leadership and innovation in the use of technology for the delivery and support of learning. For example, post-secondary faculty and learners can access the combined collections of over 300 Alberta public libraries through the Alberta Public Library Electronic Network (APLEN), a collaborative initiative of the Government of Alberta and a province-wide consortium of university, college, public and special libraries and library organizations. Through the Alberta Online Consortium, over 100 post-secondary institutions, school authorities and private sector organizations work together to support positive working relationships, online course development and new initiatives for online learning.

Through the implementation of SuperNet, all publicly funded post-secondary institutions, school authorities and communities in the province will have access to a high-speed broadband network. This will significantly increase capacity for delivery of online learning, research and communication among Alberta's academic community.

Like most jurisdictions in Canada, Alberta's post-secondary system currently faces significant challenges regarding facilities maintenance and expansion. During the 1950s, '60s and '70s, post-secondary institutions throughout the country expanded to accommodate the needs of the "baby boom" population. A large proportion of facilities are reaching the end of their projected life cycle and there is a need to upgrade or replace these facilities.

Individual Factors

Faculty and other staff are attracted to and stay at post-secondary institutions for a variety of personal and professional reasons. These can include developmental opportunities, employment stability, infrastructure, reputation, culture, research opportunities, compensation, and spousal and family needs. What is of greatest importance will vary between individuals depending upon their backgrounds, interests and aspirations.

Appendix 3: Disciplines Presenting Attraction and Retention Challenges

Following are the disciplines frequently mentioned by stakeholders as presenting attraction and retention challenges.

College sector:

- Communications, particularly New Media and Digital Technologies
- Computing Sciences/Information Systems/Information Technology
- Core sciences
- Technology programs
- Health careers/programs, especially Nursing and Para-medicine
- Math/Statistics
- Skilled trades (apprenticeship) programs

Technical Institute sector:

- Computing Sciences/Information Systems/Information Technology
- Technology programs
- Food services
- Heavy industries
- Skilled trades (apprenticeship) programs

University sector:

- Business/Management, especially Finance
- Computing Sciences
- Economics
- Engineering
- Health Care, especially Medicine

Appendix 4: Alberta's Support for Faculty Attraction and Retention

The Alberta government recognizes creating an environment conducive to the attraction and retention of faculty depends on the presence of a number of conditions, and is undertaking a comprehensive strategy to create such an environment. The strategy has several components:

1. Funding to enhance Alberta's intellectual infrastructure and support balanced long-term programs of research is being provided through:

    - *Alberta Science and Research Investments Program (ASRIP)* - $25 million available in 2001-02, and $30 million in each of 2002-03 and 2003-04. ASRIP supports selected science and research initiatives of strategic importance undertaken by Alberta's post-secondary institutions and research hospitals.
    - *Informatics Circle of Research Excellence (iCORE)* – $10 million annually. Building on existing excellence and strengths of Alberta's universities, iCORE aims to attract and recruit outstanding researchers in information and communications technology (ICT) and support strong scientific ICT teams.
    - *Alberta Heritage Foundation for Medical Research* (AHFMR) - $53 million in 2000-01.
    - *The Ingenuity Fund* - up to $25 million annually.

2. New on-going funding of $28.5 million was provided to post-secondary institutions in 2001-02 to help attract and retain faculty and staff.

3. Additional on-going funding of $12 million is being provided for attraction and retention in 2002-03.

4. Our government is investing in students through enhancements to student assistance, scholarships, and availability of graduate scholarships (see Appendix 5).

5. The provincial government has taken important steps in the past few years to improve its tax regime, quality of life, and the economy.

6. Establishment of the working group on faculty attraction and retention to make recommendations on further improving the ability of the post-secondary system to attract and retain faculty.

Appendix 5: Alberta Graduate Student Scholarships

The Alberta government and several provincial agencies encourage Albertans to undertake advanced study through a number of graduate scholarship programs.

1. *Province of Alberta Graduate Scholarship and Fellowship* - Funded through the Alberta Heritage Scholarship Endowment Fund for full-time masters and PhD students. In 2000-01, $1.4 million was awarded to 144 students.

2. *Ralph Steinhauer Awards of Distinction* - Funded through the Alberta Heritage Scholarship Endowment Fund for full-time masters and PhD students. In 2000-01, $265,000 was awarded to 15 students.

3. *Sir James Lougheed Awards of Distinction* - Funded through the Alberta Heritage Scholarship Endowment Fund for full-time masters and PhD students studying outside the province. In 2000-01, $265,000 was awarded to 15 students.

4. *Masters Scholarship Program* - Funded through the Alberta Heritage Scholarship Endowment Fund, this program was implemented in November 2001. Approximately 1,000 masters students receive annual awards of $2,000 each.

5. *Health Research Studentship* - Funded through Alberta Heritage Foundation for Medical Research (AHFMR), for full-time masters or PhD students in health disciplines. In 2000-01, 15 students received awards totaling $182,500.

6. *MD/PhD Studentship* - Funded through AHFMR, for full-time students in the combined MD/PhD programs at the University of Alberta and the University of Calgary. In 2000-01, six students received awards totaling $100,000.

7. *Heritage Part-time Studentship* - Funded through AHFMR, for masters and PhD students in health disciplines who want to complete research part-time. In 2000-01, one student received an award of $3,800.

8. *AHFMR Fast Track Studentship* - Funded through AHFMR, for full-time students (but also fellows) for one year only. This is a new program – in this fiscal year approximately $215,000 will be awarded to 10 students. Annual grants will remain constant in future years.

9. *Alberta Ingenuity Fund Studentship* - Funded through The Ingenuity Fund, for full-time masters and PhD students in science and engineering disciplines. This is a new program – in this fiscal year $430,000 was awarded to 20 students. As the program expands, annual grants are expected to reach between $1.8 and $2.4 million.

10. *Alberta Ingenuity Fund Fast Track Studentship* - Funded through The Ingenuity Fund, for full-time masters and PhD students, for one year only. This is a new program – in this fiscal year a $215,000 will be awarded to 10 students. Annual grants will remain constant in future years.

Appendix 6: What Other Jurisdictions Are Doing

Canada

The federal government recently amended a 20-year-old policy requiring post-secondary institutions to advertise faculty vacancies in Canada before advertising in other countries. This two-tier policy was relaxed so that Canadian institutions could place advertisements simultaneously to accelerate recruitment processes.

British Columbia

In 1998-99, the Government of British Columbia established the British Columbia Knowledge Development Fund to provide a total of $217 million in capital funding to public post-secondary institutions, teaching hospitals, and affiliated non-profit research agencies for research infrastructure over a nine year period. A key objective of the fund is to improve British Columbia's ability to attract and retain high quality researchers and skilled technicians.

Additionally, the Provincial Research Fellowship Program was established to help BC universities attract new research faculty to their high-technology programs. The program provides research fellowships of up to $40,000 per year for three years to support new faculty members to undertake research and graduate student supervision in the areas of information technology, biotechnology, fuel cell technology, new media and aerospace.

The BC government has also pledged to establish a "Leading Edge Endowment Fund" based on cost-sharing partnerships with the private sector, that will create 20 permanent BC Leadership Chairs across the province in the fields of medical, social, environmental and technological research.

Ontario

The Ontario government has taken a number of steps to help strengthen the capacity of universities to hire and retain faculty and to attract top researchers, including:

- The Ontario Research and Development Challenge Fund provides $550 million over 10 years to develop leading-edge research capacity. This support will lever about $2 billion from the private sector, research institutions, and the federal government.
- The Ontario Innovation Trust will invest $750 million in research infrastructure at Ontario's universities and research institutions. The funds are intended to foster innovation, build Ontario's communities, and increase Ontario's competitive advantage.
- Through the Premier's Research Excellence Awards, $85 million over 10 years will be provided to promising young faculty to attract top graduate students and postdoctoral fellows to their research teams.
- $10 million over six years will be provided to establish the Premier's Platinum Awards for the best senior researchers in Ontario.

- Introduction of a $29 million "fair funding" initiative to increase the number of teachers at the undergraduate level and to enhance professional development programs.
- The Access to Opportunities Program (ATOP) provides up to $228 million over three years to double enrolments in computer science and high-demand fields of engineering. The government expects this initiative will assist universities to attract and retain faculty in these key areas.

Ontario's college sector has also taken steps to address employee attraction and retention issues. A recent study completed for the *Association of Colleges of Applied Arts and Technology of Ontario* made a number of recommendations including:

- Development of human resources staffing plans that address recruitment, retention, succession planning, training, and professional development strategies.
- Development of joint recruitment initiatives between institutions.
- Sharing of best practices between institutions.
- Development of methods to track and evaluate the results of new initiatives.
- Development of mentoring programs.
- Development of marketing strategies that promote a positive image of college careers.

Québec

The Government of Québec has identified the renewal, recruitment and retention of high-quality academic staff as a priority for government action. Specific related initiatives include:

- Effective April 1998, a five-year provincial income tax exemption for foreign post-doctoral researchers working at Québec universities or public research centres in the pure and applied sciences or related fields.
- Effective July 2000, a five-year provincial income tax exemption for foreign university professors working at Québec universities in the fields of science, engineering, finance, health or new information and communication technologies.
- Effective in the 2000-01 university year, the grant linked to the number of university graduate degrees awarded was increased from $600 to $1,000 per master's degree and from $1,000 to $7,000 per doctoral degree.